



Chico

**Golden  
Empire  
Amateur  
Radio  
Society, Inc.**

www.gearsw6rhc.org

"Dedicated to Public Service"

# THE RADIATOR



W6RHC  
IRLP #8170



P.O.Box 202 Chico, CA 95927

May 2020 Newsletter

GEARS Founded August 13, 1939

The COVID-19 virus precautions continue requiring cancelation of most events. None of us like this situation, however we will do our best to keep members safe and healthy.

Once again held our GEARS general meeting online via Zoom video and phone conference. We held the drawing for the Yaesu FT-70DR radio, the winner was Paul Stewart N6PAS. He picked up the radio the next morning and seemed very happy about it. You can watch the April meeting here: [https://youtu.be/\\_Y0zcC0IOEs](https://youtu.be/_Y0zcC0IOEs)

Please be assured that we feel Zoom meetings are safe. The security issues that some users were concerned about have been resolved. Of course you can also participate by phone, which is as safe as any phone call.

We will also hold the May general and board meeting online. Watch your email for a link and phone number. The monthly breakfast is cancelled for the time being.

Tom W6JS is working on holding VEC testing at an outside location. Please contact him at 514-9211 for more information.

May birthday wishes to Rick Hubbard KI6VOS and Lee Meldon K6DWO.

This is a great time to reach out to your fellow amateur radio friends via radio or phone. We can keep in touch even though we are isolated otherwise. Try to participate in the local nets too. Let's relax and do what we can to help one another. We will get through this current situation.



'73  
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[www.facebook.com](http://www.facebook.com) For  
timely news and additional  
information.

## May 2020 Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3 8pm OARS Net	4 7pm GARS Net 8pm ARES Net	5 7:30pm GEARS Net	6	7 7pm PARS Net 7:30pm Simplex Net	8 7pm OARS Meeting TBD	9 GEARS Board Meeting online
10 8pm OARS Net	11 7pm GARS Net 8pm ARES Net	12 7:30pm GEARS Net	13	14 7pm PARS Net 7:30pm Simplex Net	15 7pm GEARS Meeting online	16
17 8pm OARS Net	18 7pm GARS Net 8pm ARES Net	19 7pm ARES meeting 7:30pm GEARS Net	20	21 7pm PARS Net 7:30pm Simplex Net	22	23
24 8pm OARS Net ----- 31 8pm OARS Net	25 7pm GARS Net 8pm ARES Net	26 7:30pm GEARS Net	27	28 7pm PARS Net 7:30pm Simplex Net	29	30

**VEC Testing**, FCC License Exam available by appointment. For information or registration call Tom Rider, W6JS 514-9211

**Chico Breakfast** Cancelled until things settle down with the COVID-19 virus.

**GEARS Board Meeting** 2nd Saturday online.

**OARS Meeting** Second Friday of the month, TBD (To Be Determined)

**GARS Meeting** Second Thursday of the month, TBD

**Butte ARES Meeting** 3rd Tuesday, TBD Contact Dale Anderson, KK6EVX 826-3461 for more information.

**GEARS Meeting**, third Friday of the month, online till further notice pm, meeting at 7:00 pm.

**OARS Breakfast** 4th Saturday of the month TBD

### NETS:

OARS Club Net Sunday 8pm 146.655 Mhz - PL 136.5

GARS Club Net: Monday, 7:00 pm 147.105 MHz + PL 110.9

Butte ARES Net Mondays 8pm 145.290 MHz - PL 110.9

Yuba Sutter Club Net Monday 7pm 146.085 MHz + PL 127.3

GEARS Club Net Tuesdays 7:30 PM 146.850 MHz - PL 110.9

PARS Club Net Thursday 7pm 145.290 - PL 110.9

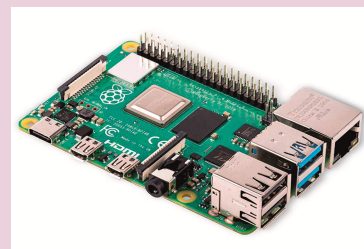
Simplex Net Thursday 7:30 p.m. 146.52 no tone

Yuba Sutter ARES Net Thursdays 7pm 146.085 MHz + PL 127.3

Sacramento Valley Traffic Net Nightly 9:00 PM 146.850 MHz - PL 110.9

## Slice of Pi

Our May online meeting Raspberry Pi tutorials will continue. If you have any questions contact at [rick.hubbard.email@gmail.com](mailto:rick.hubbard.email@gmail.com).



## IDOAAF-85 (RS-44) amateur radio transponder activated

The amateur radio linear transponder (SSB/CW) payload on the Russian satellite DOSAAF-85 (RS-44) has been activated.

Dmitry Pashkov R4UAB reports:

The satellite is named after the 85th anniversary of the Voluntary Society for the Assistance to the Army, Aviation and Navy, the organization responsible for the military training of Soviet youth. DOSAAF-85 is a small scientific satellite created by specialists of the company Information Satellite Systems (ISS) Reshetnev and students of the Siberian State Aerospace University (SibSAU) Krasnoyarsk.



The DOSAAF-85 satellite is designed to provide amateur radio communications, as well as to develop promising technologies. This is the third satellite that was created by specialists of ISS-Reshetnev and is based on the Yubileyniy platform, which features a hexagonal prism structure with body mounted solar cells.

The satellite was launched into orbit on December 26, 2019 from the Plesetsk Cosmodrome and is in an elliptical orbit with a perigee of 1175 km, an apogee of 1511 km and an inclination of 82.5 degrees.

Transmitter power: 5 watts

Beacon: 435.605 MHz – transmits CW call sign RS44

Inverting transponder:

Earth-to-Space: 145.965 MHz +/- 30 kHz

Space-to-Earth: 435.640 MHz +/- 30 kHz

Source Dmitry Pashkov R4UAB whose page also contains the satellite's TLE, see

<https://tinyurl.com/RussiaR4UAB>

Peter 2M0SQL has added RS-44 to the AMSAT Live OSCAR Satellite Status Page at

<https://www.amsat.org/status/>

Linear Satellite Frequency Summary <https://www.amsat.org/linear-satellite-frequency-summary/>

Source: AMSAT UK

## Mt. St. John

Our new repeater on Mt. St. John has been having some issues the last few weeks. We are experiencing some type of receive issues, with the signals sounding very rough. Michael Favor N6FAV and Rich Astley N3UOR flew over to take a look.

The building, antenna and solar panels look fine. However there is too much snow on the road to drive up. We will probably need to wait a few months before attempting a repair trip.



## Radio Amateur Finds Another “Zombie Satellite”

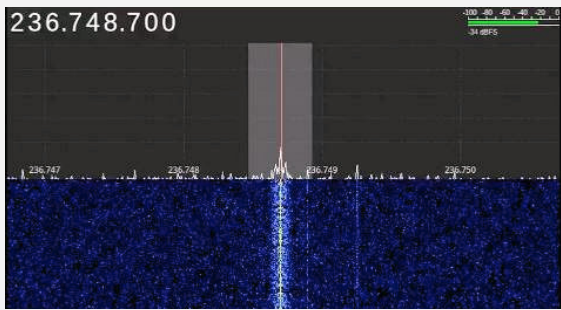
There are more than 2,000 active satellites orbiting Earth. At the end of their useful lives, many will simply burn up as they reenter the atmosphere. But some will continue circling as “zombie” satellites — neither alive nor quite dead.

In 2018, he found a signal from a NASA probe called IMAGE that the space agency had lost track of in 2005. With Tilley's help, NASA was able to reestablish contact.

But he has tracked down zombies even older than that. “The oldest one I've seen is Transit 5B-5. And it launched in 1965,” he says, referring to a nuclear-powered U.S. Navy navigation satellite that still circles the Earth in a polar orbit, long forgotten by all but a few amateurs interested in hearing it “sing” as it passes overhead.

Recently, Tilley got interested in a communications satellite he thought might still be alive — or at least among the living dead. LES-5, built by the Massachusetts Institute of Technology's Lincoln Laboratory, was launched in 1967.

British Columbia radio amateur Scott Tilley, VE7TIL, has found another “zombie satellite,” as he calls them. This time, he tracked and identified radio signals from the experimental UHF military communication satellite LES-5. Tilley says he found the satellite in what he called a geostationary “graveyard” orbit after noting a modulated carrier on 236.7487 MHz.



“Most zombie satellites are satellites that are no longer under human control, or have failed to some degree,” Tilley told National Public Radio (NPR) earlier this month. It's not clear whether LES-5 is still capable of receiving commands.

LES-5 was built by MIT's Lincoln Laboratory and launched in 1967 as part of the military's Tactical Satellite Communication Program. It was supposed to shut down in 1972, but it continues to operate as long as its solar panels are facing the sun. Tilley told NPR that he was inspired by a ham in

Cornwall who, in 2016, found an earlier satellite — LES-1 — built by the same lab and launched in 1965. What intrigued Tilley about LES-5 was that it might be the oldest functioning geostationary satellite in space.

After British Columbia went on lockdown due to the COVID-19 pandemic, Tilley found himself with a lot of free time for such a search. He located LES-5 on March 24.

From his home in Roberts Creek, British Columbia, Tilley, an amateur astronomer, routinely scans the skies for radio signals from classified objects orbiting Earth. Since he started, he's located dozens of secret or unlisted satellites.

In 2018, while hunting for an undisclosed US government spacecraft lost in a launch mishap, he spotted the signature of IMAGE (Imager for Magnetopause-to-Aurora Global Exploration), a NASA spacecraft believed to have died in December 2005. The discovery delighted space scientists. NASA and another ham in the UK confirmed his finding. Launched in 2000 on a mission to monitor space weather, IMAGE mapped plasma patterns around Earth.

Source: ARRL & NPR



## GEARS Century Club Members

Rick Hubbard  
Bennett Laskey

*Thank you very much for your extra support*

## **You Can Tell You're A Radio Nut when...**

1. You remember the exact date and time that lightning hit "the tower". The whole radio room was burned to a crisp, but you tell friends, "at least my wife wasn't home when it happened."
2. You'll spend hundreds of dollars on a new rig, and then wander the hamfest pausing each time you pass the booth selling those \$7 embroidered callsign hats thinking "I wonder if they'll take \$6?"
3. You're a CBer who buys a new \$300 five-watt, perfectly operating rig, opens the cabinet to "tweak" it to 20 watts, knowing full well it'll end up being sent back to the company for repair. The radio comes back, and a few weeks later you repeat the process - by watching your CBer friend from across town do surgery on your radio.
4. When shopping for a new vehicle the first think you look for is space to mount the radios - you end up sitting in the front seat staring blankly at the dashboard area, feeling underneath seats, and poking around the backseat for ways to route the coax. If caught looking under the hood for holes in the firewall for your power cables, you tell your wife, "Nothing honey, just checking things under here."
5. Your family has a special annual garage sale just to get rid of the boxes of wire, coax, and power adapters-but you pay your friends to "buy" the stuff and get them to quietly return it to you the following weekend.
6. You absolutely need a radio with thousands of channels - even though you live in a town with three cops and a volunteer fire department and the airport is 350 miles away.
7. In your determination to get that new vertical antenna up, or longwire strung in the backyard, you tell family and neighbors that "it's only temporary - I'm testing it for this guy."
8. The \$10 bargain you got at the fleamarket that smoked up the whole house when you turned it on is one of your prized possessions.
9. You'd rather sell your family's TV and VCR than give up the box of vacuum tubes you got at a "bargain" even though 90% of them are dead.
10. It still doesn't matter to you if the antique radio you brought home was an apartment for mice.
11. You're not speaking to your elderly neighbor because last week just as you tuned Radio Kiribati, he turned on his power drill.
12. Your wife has called you three times for dinner - then she calls you on the repeater.
13. You're the only one in your family that understands the real meaning of CW. And you get stressed out if someone's CW transmission rate varies from one to 75wpm with no warning.
14. When going on vacation, the first thing you think about packing is your handhelds, chargers, scanner and frequency book.
15. You take your scanner to work disguised as a cell phone.
16. You acknowledge conversations with your family and friends by saying 10-4 - and they think it's normal.
17. The total number of radio related books in your home are five times the total number of all other books and magazines.

18. You store extra "emergency" AA batteries in the refrigerator.
19. You're immediately recognized and spoken to by name at your favorite radio dealers.
20. You think a good time is "breaking in" a new part-time Radio Shack employee with your radio wisdom.
21. Your spouse goes to the supermarket while you "look around" in Radio Shack.
22. You visually check your outdoor antennas and coax once a week, regardless of the weather.
23. People ask you to turn down the volume on the radios when they call you.
24. The total number of antennas on your house is greater than six other houses on your block-counting the other ham down the street.
25. You've considered contacting NOAA offering your voice as a substitute for that awful sounding mechanical computer-generated voice.
26. People keep asking your family about the "light that's always on" in the back room where your radio shack is located.
27. More than 95% of the photos in your family album show you with a radio strapped to your belt or a microphone in your hand.
28. You have more certificates and licenses on the wall than your local veterinarian or dentist.
29. Your cat or dog instinctively knows not to bother you when you're in your radio shack.
30. All the local cops know your vehicle on sight - "it's the blue Crown Vic with six antennas".

From: <http://www.repeater-builder.com/>

#### Club Officers:

President.....Jim Matthews, K6EST  
 Vice-President.....Kent Hastings, WA6ZFY  
 Secretary.....Susan Check, KE6LTY  
 Treasurer.....Kathy Favor, K6FAV  
 Director.....Rick Hubbard, KI6VOS  
 Director.....Dale Anderson, KK6EVX  
 Director.....Bennett Laskey, K6CEL  
 Past President.....Tom Rider, W6JS  
 VEC.....Tom Rider, W6JS

